



## RANGE COMPLEX HANDBOOK

**FLIGHT SCHEDULING:** FACSFAC JACKSONVILLE – Ph: 904-542-2028, Fax: 904-542-2525

**RANGE INFORMATION:** PINECASTLE RANGE CONTROL – Ph: 352-759-3184  
Fax: 352-759-2944

**OPERATING HOURS:** DST- MON & WED 1200-2200, TUE & THU 0900-1700, FRI, 0800-1200  
EST- MON & WED 1000-2000, TUE & THU 0900-1700, FRI, 0800-1200

# **RANGE OVERVIEW**

**Pinecastle Range Complex is a COMNAVAIRLANT Aircrew Combat Training Range under administrative control of Naval Air Station, Jacksonville, Florida.**

**NOTE: Information contained within this handbook was extracted from FACSFACJAX INST 3000.1 Series.**

## **PURPOSE:**

The primary purpose of the Pinecastle Range Complex is to provide an environment wherein aircrews may learn the proper maneuvering tactics and weapons delivery techniques required while delivering weapons to targets within a potentially hostile environment; thus enhancing the potential for increased aircrew survivability and weapons delivery accuracy through proven tactics and maneuvering techniques. The Pinecastle Range Complex is used in support of U.S. Navy and Marine Corps aircrew training requirements. Civilian DoD personnel with reporting responsibilities to the Commanding Officer, NAS Jacksonville, manage the Pinecastle Range Complex. The Operations and Maintenance Service contractor provides operation and maintenance support.

## **SUPPORT EQUIPMENT:**

The support and evaluation of aircrew training and ground target operations is provided by the Training Operations Evaluation Equipment and Systems. The evaluation effort is conducted from within the Range Operations Center (ROC) located at the Centroid facility. Electronic scoring and evaluation systems that support aircrew training consist of the following equipment: the Weapons Impact Scoring Set (WISS), Remote Strafe Scoring System (RSSS), Laser Designator/Simulator System (LD/SS), and Laser Evaluator System (LES).

Target Operations Support Equipment and Systems are used throughout the range complex to enhance the effectiveness and safety of the range. The systems include Safety Surveillance System (SSS), Target Night Lighting, Target Calibration Placards, and various Ground-Air and Ground-Ground communications equipment.

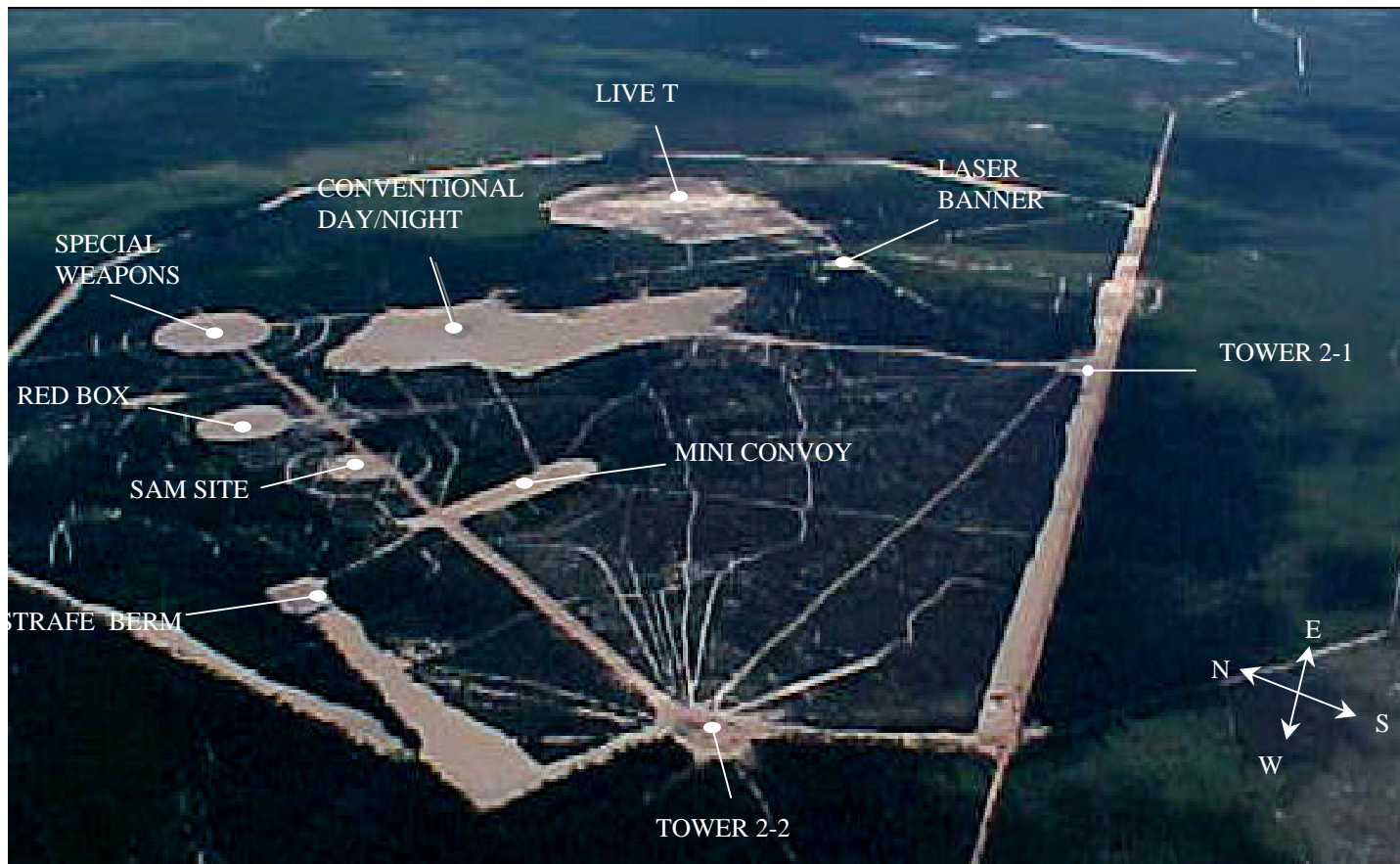
## **SCHEDULING:**

The Fleet Area Control and Surveillance Facility (FACSFAC) Jacksonville (JAX) is the only scheduling authority for the Pinecastle Range Complex. All squadrons or operational units shall schedule, update and/or cancel flights and operations through FACSFACJAX. Live ordnance must be scheduled thirty-six (36) hours in advance. Laser operations must be scheduled a minimum of twenty-four (24) hours in advance. Monday operations must be scheduled no later than 1500 on Friday of the preceding week.

## **SPECIAL CONDITIONS:**

A High Burn Index or High Drought Index (when fire potential is extremely high) at the Pinecastle Impact Range (R-2910) may cause the U.S. Forest Service to close the range to ordnance delivery training. During these periods of high fire potential, all ordnance delivery training will be diverted to the Rodman Ordnance Range (R-2906). However, LIVE Ordnance, Lasers and Gun Ammunition are STRICTLY PROHIBITED at the Rodman Range.

## PINECASTLE IMPACT RANGE



### **DESCRIPTION:**

The Pinecastle Impact Range consists of one (1) LIVE Ordnance target and three (3) INERT Ordnance targets that can be electronically scored. Two (2) other targets are available, however they cannot be scored. Also, a STRAFE target and a LASER target are available and can be scored.

### **PINECASTLE PRE-BRIEF:**

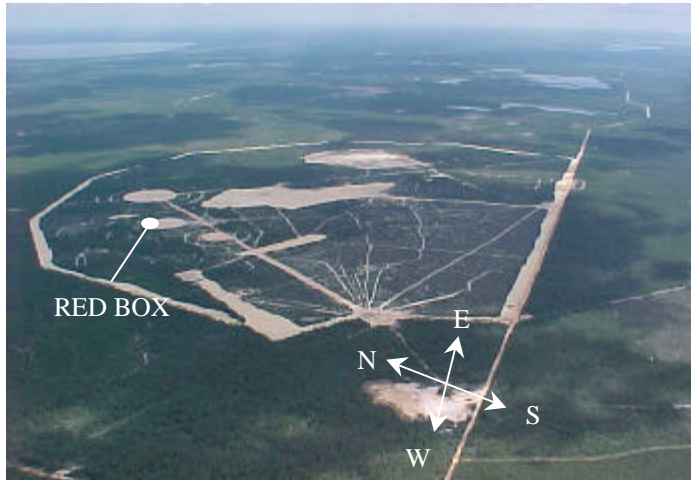
Minimum altitude over the crossroads at N29° 03' 01" and W81° 38' 29" is 1500 feet AGL. Minimum altitude over any building outside the Impact Range is 500 feet. Minimum downwind altitude on a 317° magnetic heading or run-in-line is 1500 feet AGL. Descend to the run-in-line or heading altitude at the crossroads. Prior to first release, advise "Pinecastle Target Control" of the run-in-line and heading to be used.

### **LASER PRE-BRIEF:**

Prior to lasing at Pinecastle Impact Range (R2910) a fly over must be made to ensure there is no encroachment of personnel or standing water puddles in the vicinity of the selected target. Authorized targets are the Red Box, Sam Site, Main Bull, Live T, Mini Convoy, and the LES target board. All aircrews shall be familiar with laser hazard zones and firing fans as delineated in the FACS FAC JAX OPERATIONS MANUAL (FACS FAC JAXINST 3000.1 Series).

# IMPACT REDBOX TARGET

## TARGET LOCATION



## TARGET CONFIGURATION



### **DESCRIPTION:**

The Redbox target is a simulated communications station. It consists of four orange engine containers positioned to form a square with a master communications unit located in the center (as shown above). The entire configuration is contained within a 200 foot diameter circle. Redbox is a scoreable target with its center located at 29° 07' 15 " N, 81° 43' 25" W.

### **AUTHORIZED ORDNANCE:**

BDU-33, BDU-45, BDU-48, Mk-76, Mk-106, Mk-82, Mk-83, Mk-84 INERT and LGTR.

### **RUN-IN-LINES:**

317° or 137° ±15°

### **COMMUNICATIONS:**

Pinecastle Targets: 380.8 MHz, SEALORD: 357.0 MHz

### **RESTRICTIONS:**

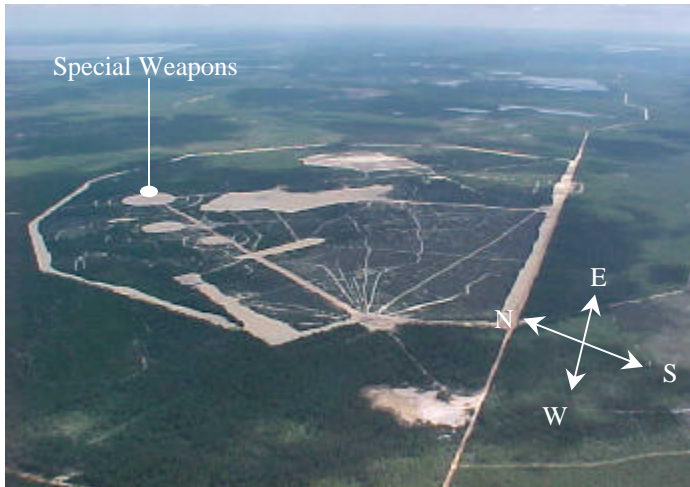
No Live Ordnance or Paraflares are authorized. Depending on the Burn Index, the use of the Mk-4 signal charge may be restricted.

### **LASERS:**

Lasing is authorized but aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.

# IMPACT SPECIAL WEAPONS TARGET

TARGET LOCATION



TARGET CONFIGURATION



## **DESCRIPTION:**

Special Weapons (Main Bull) is a scoreable target that consists of four concentric rings 300, 600, 900, and 1,200 feet in diameter encompassing a bulls-eye consisting of an orange battle tank. The center bull is clear out to 450 feet, with two rings of tires at 50 and 200-foot radii from center. Target center is located at 29° 07' 26" N, 81° 43' 10" W.

## **AUTHORIZED ORDNANCE:**

Mk-106, Mk-76, BDU-33, BDU-48, Laser Guided Training Round (LGTR).

## **RUN-IN-LINES:**

317° or 137° ±15°

## **COMMUNICATIONS:**

Pinecastle Targets: 380.8 MHz, SEALORD 357.0 MHz

## **RESTRICTIONS:**

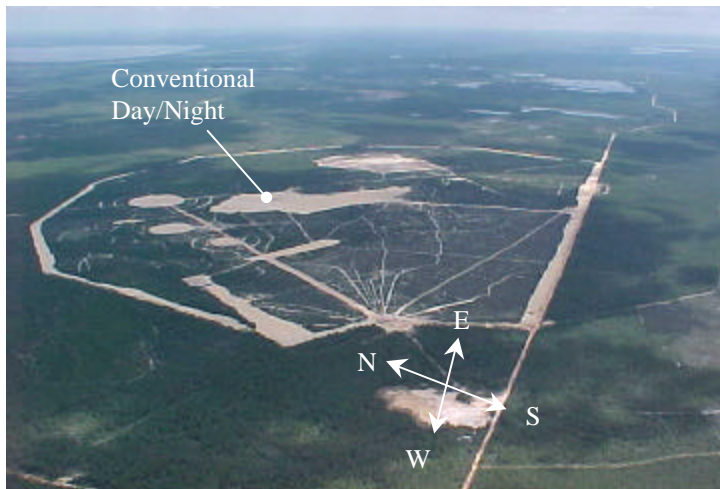
No Live Ordnance or Paraflares. Depending on Burn Index, the use of the Mk-4 signal charge may be restricted.

## **LASERS:**

Lasing is authorized but aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.

# IMPACT CONVENTIONAL DAY/NIGHT TARGET

## TARGET LOCATION



## TARGET CONFIGURATION



### **DESCRIPTION:**

The Day/Night Conventional target is a scoreable target consisting of a single surplus military vehicle located at target center. Four concentric rings of tires circle the target center at 50, 100, 200 and 300 foot radii. The target is equipped with an integral target illumination and lighted run-in-line system for night ordnance training. Target Center is located at 29° 07' 10" N, 81° 43' 02" W.

### **AUTHORIZED ORDNANCE:**

Mk-76, BDU-33, Mk-106, BDU-48, Recoverable BDU and LGTR.

### **RUN-IN-LINES:**

317° or 137° ±15°

### **COMMUNICATIONS:**

Impact Targets 380.8 MHz, SEALORD 357.0 MHz.

### **RESTRICTIONS:**

No sub-caliber Practice Ordnance, or Laser Guided Training Rounds (LGTR) are allowed when recoverable BDU's are present on target. No Gun Ammunition, Live Ordnance, Rockets or Paraflares are authorized. Depending on the Burn Index, the use of Mk-4 night signal charges may be restricted.

### **LASERS:**

Lasing is authorized but aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.



# IMPACT LIVE “T” TARGET

## TARGET LOCATION



## TARGET CONFIGURATION



### **DESCRIPTION:**

The Live “T” target is a scoreable target composed of various types of military vehicles arranged in a “T” formation. The “T” is oriented on a 360 heading. Target center (at the junction of the T) is located at 29° 07’ 06” N, 81° 42’ 21” W.

### **AUTHORIZED ORDNANCE:**

Mk-82 five hundred pound general- purpose bomb, the Mk-20 with Inert sub-munitions and Rockets up to five inches.

### **RUN IN LINE:**

317° or 137° ±15 degrees.

### **COMMUNICATIONS:**

Pinecastle Targets 380.8 MHz, SEALORD 357.0 MHz.

### **RESTRICTIONS:**

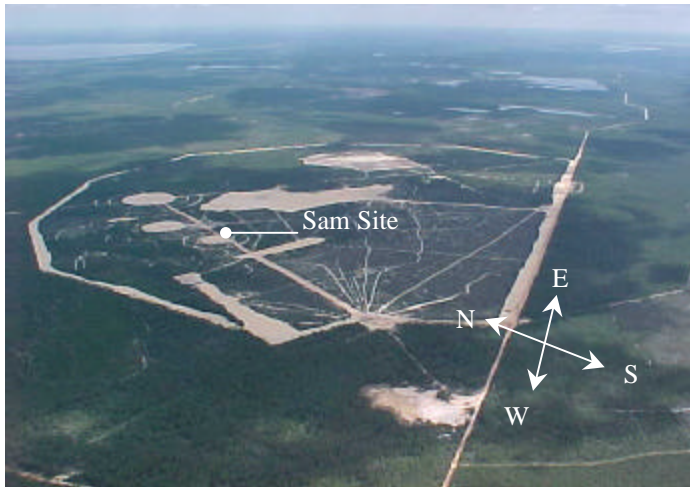
No Incendiary Ordnance or Paraflares. Time delay fuses are prohibited. No releases are authorized without positive target identification and positive clearance from Pinecastle Control. Use caution concerning the spotting towers due south of the target area. Live Ordnance releases are prohibited when surface winds at the target area exceed a steady twelve knots. Live Ordnance delivery is allowed between 0900 and one hour prior to sunset.

### **LASERS:**

Lasing is authorized however, aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.

# IMPACT SAM SITE TARGET

TARGET LOCATION



TARGET CONFIGURATION



## **DESCRIPTION:**

Sam Site is a simulated surface-to-air missile site. It is a non-scoreable target that resembles a six-pointed Star with a 1,600-foot diameter circular service road encompassing a simulated radar and surrounding missile launcher pads and interconnecting cable paths. Target center is located at 29° 07' 05" N, 81° 43' 29" W.

## **AUTHORIZED ORDNANCE:**

Mk-76, BDU-33, Mk-106, BDU-48, BDU-45, Mk-82, Mk-83, Mk-84 INERT, and Rockets up to five inches with INERT Warheads.

## **RUN-IN-LINES:**

317° or 137° ±15 degrees

## **COMMUNICATIONS:**

Pinecastle Targets 380.8 MHz, SEALORD 357.0 MHz

## **RESTRICTIONS:**

No Gun Ammunition, Live Ordnance, or Paraflares are authorized. Depending on Burn Index, the use of the Mk-4 signal charge may be restricted.

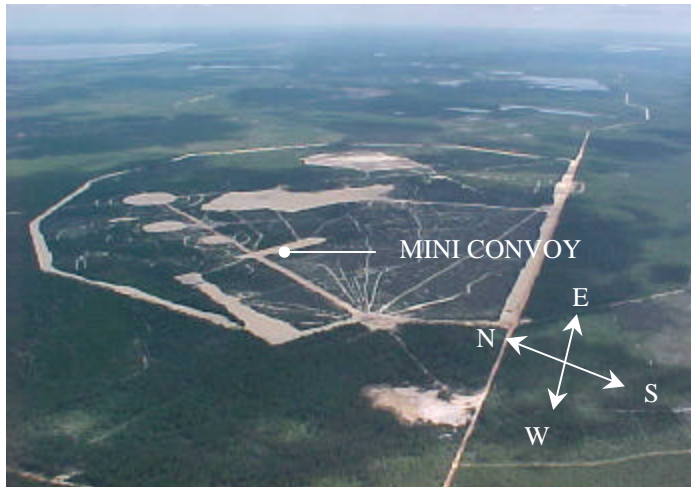
## **LASERS:**

Lasing is authorized but aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.

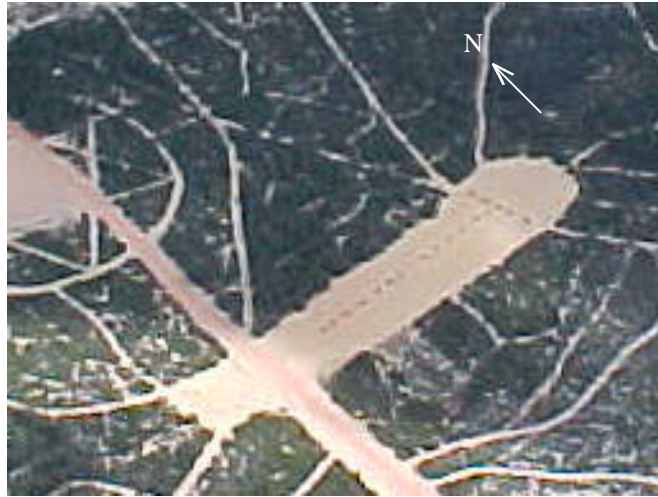


# IMPACT MINI CONVOY TARGET

TARGET LOCATION



TARGET CONFIGURATION



## **DESCRIPTION:**

Mini convoy is a non-scoreable target resembling a runway with various small military vehicles staged thereon. Target center is located at 29° 06' 54" N, 81° 43' 26" W.

## **AUTHORIZED ORDNANCE:**

Mk-76, BDU-33, Mk-106, BDU-48, BDU-45, Mk-82, Mk-83, Mk-84 INERT, and Rockets up to five inches with INERT Warheads.

## **RUN-IN-LINES:**

317° or 137° ±15 degrees

## **COMMUNICATIONS:**

Pinecastle Targets 380.8 MHz, SEALORD 357.0 MHz

## **RESTRICTIONS:**

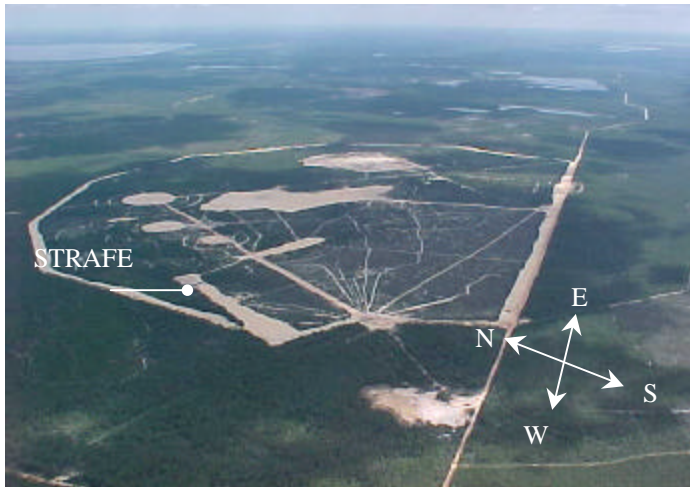
No Gun Ammunition, Live Ordnance, or Paraflares are authorized. Depending on Burn Index, the use of the Mk-4 signal charge may be restricted..

## **LASERS:**

Lasing is authorized but aircraft heading is restricted to 122° clockwise to 152°, and 302° clockwise to 332° True North.

# IMPACT STRAFE TARGET

TARGET LOCATION



TARGET CONFIGURATION



## **DESCRIPTION:**

The Strafe Target consists of an orange/red square banner suspended on the face of an earthen berm. The target is equipped with an automatic scoring device that provides scoring information using a recorded message on the target control frequency of 380.8 MHz. Spotting Tower 2-2 is located at 90 feet elevation. It is situated abeam the foul line, 600 feet right of the run in heading and 1200 feet short of the banner. Target center is located at 29° 06' 54" N, 81° 43' 51" W.

## **AUTHORIZED ORDNANCE:**

Target Practice (TP) Gun Ammunition up to 30mm.

## **RUN-IN-LINES:**

038° heading only. Only a right-hand pattern may be used.

## **COMMUNICATIONS:**

Pinecastle Targets 380.8 MHz, SEALORD 357.0 MHz

## **RESTRICTIONS:**

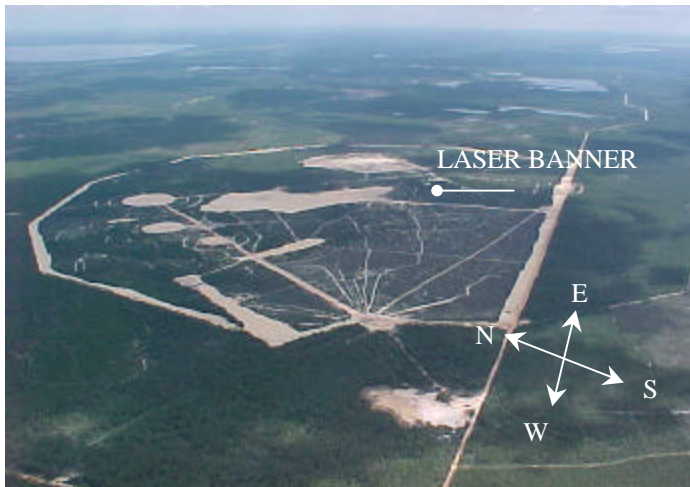
High Explosive or Tracer rounds are NOT authorized.

## **LASERS:**

Lasing is NOT authorized on this target.

# IMPACT LASER BANNER

## TARGET LOCATION



## TARGET CONFIGURATION



### **DESCRIPTION:**

Laser Evaluator System (LES) is a target board designated for aerial use only. The board consists of a laser detector which, when lased, transmits a pulsed tone over the target control frequency (380.8 MHz). The Laser board is located at 29° 06' 57" N, 81° 42' 27" W.

### **AUTHORIZED ORDNANCE:**

None. Lasers only.

### **RUN-IN-LINES:**

317° only.

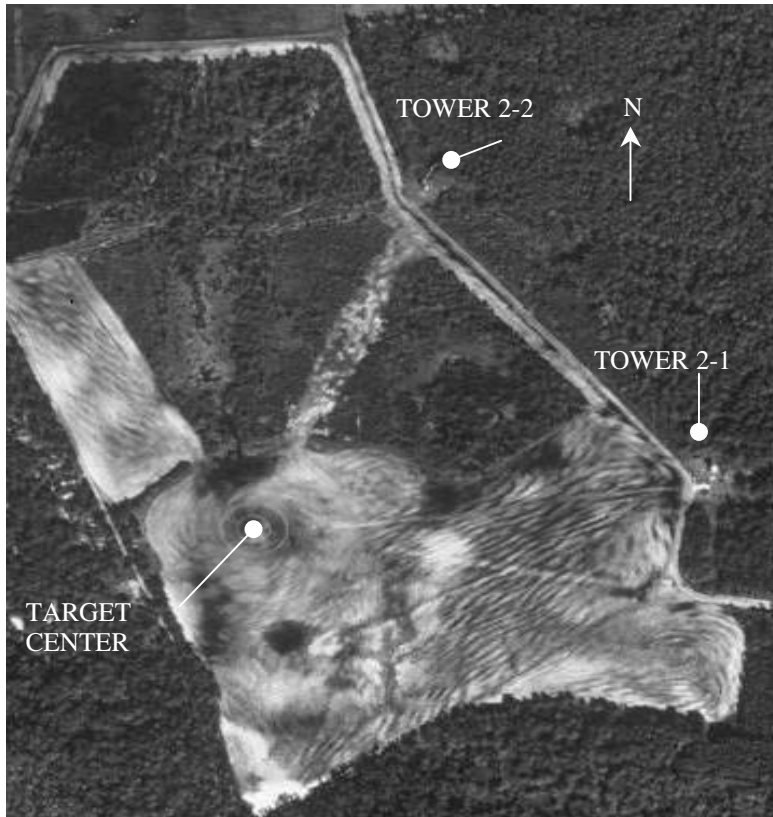
### **COMMUNICATIONS:**

Pinecastle Targets 380.8 MHz, SEALORD 357.0 MHz

### **RESTRICTIONS:**

No Ordnance is authorized. Only authorized fielded Laser systems may be utilized. Contact Pinecastle Control for verification of Laser usage.

## RODMAN RANGE



### **DESCRIPTION:**

The Rodman Target consists of a single target consisting of a surplus military vehicle at the target center, surrounded by concentric rings of tires at 50 and 100 foot radii. The target is cleared out to a 300-foot radius. The target is equipped with an integral target illumination and lighted run-in-line system for night ordnance training. Target Center is located at 29° 29' 25" N, 81° 46' 28" W.

### **PRE-BRIEF:**

For multiple runs, the minimum downwind altitude is 1500 feet AGL. Remain south of the barge canal when below 3000 feet AGL. Prior to first release, advise "RODMAN TARGET CONTROL" of the run-in heading to be used.

### **AUTHORIZED ORDNANCE:**

Sub-caliber Practice Bombs, BDU-33, Mk-76, BDU-48, and Mk-106.

### **RUN-IN-LINES:** 150° or 330° ±15 degrees

### **COMMUNICATIONS:** Rodman Targets: 321.8 MHz, SEALORD 357.0 MHz

### **RESTRICTIONS:**

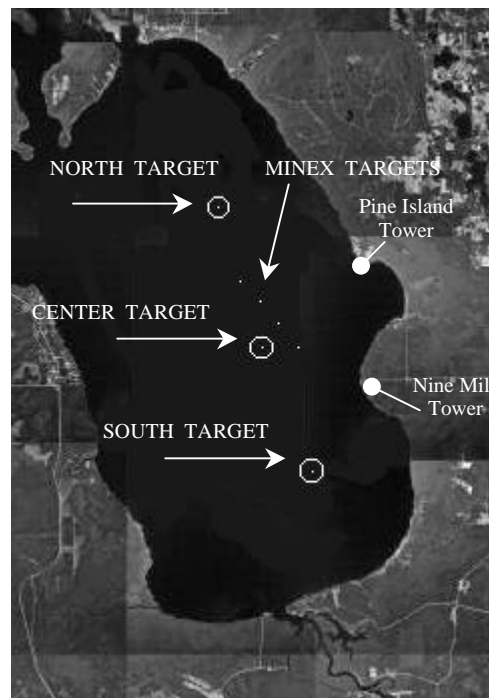
No Gun Ammunition, Live Ordnance, Paraflares, Rockets, Laser Guided Training Rounds (LGTR), or LASERS are authorized.

# LAKE GEORGE RANGE

## DESCRIPTION:

The Lake George Range consists of water targets containing a surface area approximately 2 NM by 7 NM. Within these boundaries are three standard target areas (North, Center and South) and a four target MINEX area. Only the MINEX Targets and the Center Target can be scored .

- 1) **North Target:** The target consists of a 24 foot square reflective target center surrounded by a ring of pilings with a 900-foot diameter.
- 2) **Center Target:** The target consists of three concentric rings of 250, 500, and 1,000 feet in diameter.
- 3) **South Target:** The target consists of a 30 by 60 foot rectangular target center (six pilings) surrounded by three concentric piling rings of 250, 500, and 1,000 feet in diameter.
- 4) **MINEX Target:** The target consists of four preplanned splash points on a 129.4° T bearing from the IP located at Kingsley Point on the southern tip of Drayton Island.



## PRE-BRIEF:

Do not release Ordnance on the first run to ensure there are no boats in the target area. Minimum altitude within 2 NM of the western shore is 1,200 feet AGL. Minimum altitude near any building is 500 feet AGL. For multiple runs, the minimum altitude over houses located on the eastern side of Drayton Island is 1,500 feet AGL. Prior to first Ordnance release, advise "LAKE GEORGE CONTROL" of the heading that will be used. Target coordinates are listed in FACSFACJAXINST 3000.1 series.

## AUTHORIZED ORDNANCE:

**North, South:** BDU-33, Mk-76, BDU-48, Mk-106, BDU-45, Mk-82, Mk-83 and Mk-84 INERT.  
and MINEX

**Center Target:** BDU-33, Mk-76, BDU-48, Mk-106, BDU-45, Mk-82, Mk-83 and Mk-84 INERT.  
Rockets with INERT warheads up to 5 inches in diameter, and Paraflares are authorized.

**RUN-IN-LINES:** Any run-in heading between 90° and 180° may be used on standard targets, and 129.4° T heading from the IP for the four MINEX targets.

**COMMUNICATIONS:** Lake George Targets: 350.4 MHz, SEALORD 357.0 MHz

**RESTRICTIONS:** No Gun Ammunition, Live Ordnance, (LGTR) or LASERS.